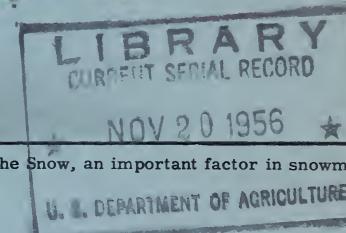


## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



1/96  
R31 Form  
p.2



Checking Mountain Soil Moisture Under the Snow, an important factor in snowmelt runoff.

Federal-State Cooperative  
Snow Surveys and Water Supply Forecasts  
for  
Colorado River, Rio Grande,  
Platte River and Arkansas River  
Drainage Basins

SOIL CONSERVATION SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE  
AND  
COLORADO AGRICULTURAL EXPERIMENT STATION  
AND  
STATE ENGINEER OF NEW MEXICO

— AS OF —  
MAY 1, 1956

Data included in this report were obtained by the agencies named above  
in cooperation with the U. S. Forest Service, National Park Service, Bur-  
eau of Reclamation, State Engineers of Colorado and Wyoming; and  
other Federal, State and local organizations.

UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY  
AND WATER SUPPLY FORECAST REPORTS:

Snow surveys in the West are conducted each year at more than 1200 snow courses. Basin and Province or State snow survey reports summarizing the results of the measurements and forecasts of seasonal runoff and water supply are issued by the Soil Conservation Service, U. S. Department of Agriculture and some of its co-operators; the Water Rights Branch of the British Columbia Department of Lands and Forests; and the California Division of Water Resources.

Copies of the various federal-state cooperative snow survey reports listed below may be secured by writing to:

Head, Water Supply Forecasting Section  
Soil Conservation Service  
209 S. W. 5th Avenue  
Portland 4, Oregon

BASIN REPORTS:

Colorado, Rio Grande,... Issued monthly February through May by SCS and  
and Platte-Arkansas Colorado Experiment Station, Fort Collins, Colorado.\*  
River Basins

Columbia River..... Issued monthly January through May by Soil Conserva-  
tion Service, Boise, Idaho.\*

Upper Missouri..... Issued monthly February through May by SCS and  
River Basin Montana Agricultural Experiment Station, Bozeman,  
Montana.\*

West-Wide Water..... Issued April 1 by Soil Conservation Service and  
Supply Outlook Cooperators, Portland, Oregon.

STATE REPORTS:

Arizona..... Issued semi-monthly January 15 through April 1 by SCS  
and Salt River Valley Water Users Association, Phoenix,  
Arizona.\*

Nevada..... Issued monthly February through April by SCS and  
Nevada State Engineer, Reno, Nevada.\*

Oregon..... Issued monthly January through May by SCS, Portland,  
Oregon, and Oregon Agricultural Experiment Station.\*

Utah..... Issued monthly January through May by SCS, Salt Lake  
City, Utah, and State Engineer of Utah and Utah Agri-  
cultural Experiment Station.\*

Washington..... Issued monthly February through May by SCS, Spokane,  
Washington, and State Department of Conservation and  
Development.\*

Wyoming..... Issued monthly February through May by SCS, Casper,  
Wyoming, and State Engineer of Wyoming.\*

\*Special reports are issued as needed.

The British Columbia reports are issued February 1 through June 1 and may be  
secured from Comptroller, Water Rights Branch, Department of Lands and Forests,  
Parliament Buildings, Victoria, B.C.

The California reports are issued monthly February 1 through May 1 and may be  
secured from Division of Water Resources, California Department of Public  
Works, Sacramento, California.

The annual water supply forecasts of the Weather Bureau are available in monthly  
bulletins published from January through May. These bulletins entitled, "Water  
Supply Forecasts for the Western United States" may be obtained from River Fore-  
cast Center, Weather Bureau, 712 Federal Office Building, Kansas City 6,  
Missouri.

FEDERAL-STATE COOPERATIVE  
SNOW SURVEYS AND WATER SUPPLY FORECASTS  
for

COLORADO RIVER, PLATTE RIVER  
ARKANSAS RIVER AND RIO GRANDE  
DRAINAGE BASINS

Issued

May 8, 1956

Report Prepared By (1)  
Homer J. Stockwell, Snow Survey Leader  
Fort Collins, Colorado  
Jack N. Washichek, Assistant Snow Survey Leader  
Fort Collins, Colorado

Soil Conservation Service  
and  
Colorado Agricultural Experiment Station  
Fort Collins, Colorado  
and  
State Engineer of Colorado  
Denver, Colorado  
and  
State Engineer of New Mexico  
Santa Fe, New Mexico

Issued By

Kenneth W. Chalmers  
State Conservationist  
Soil Conservation Service

J. E. Whitten  
State Engineer  
State of Colorado

Sherman S. Wheeler, Director  
Colorado Agricultural  
Experiment Station

S. E. Reynolds  
State Engineer  
State of New Mexico

General Series Paper No. 640  
Colorado Agricultural Experiment Station

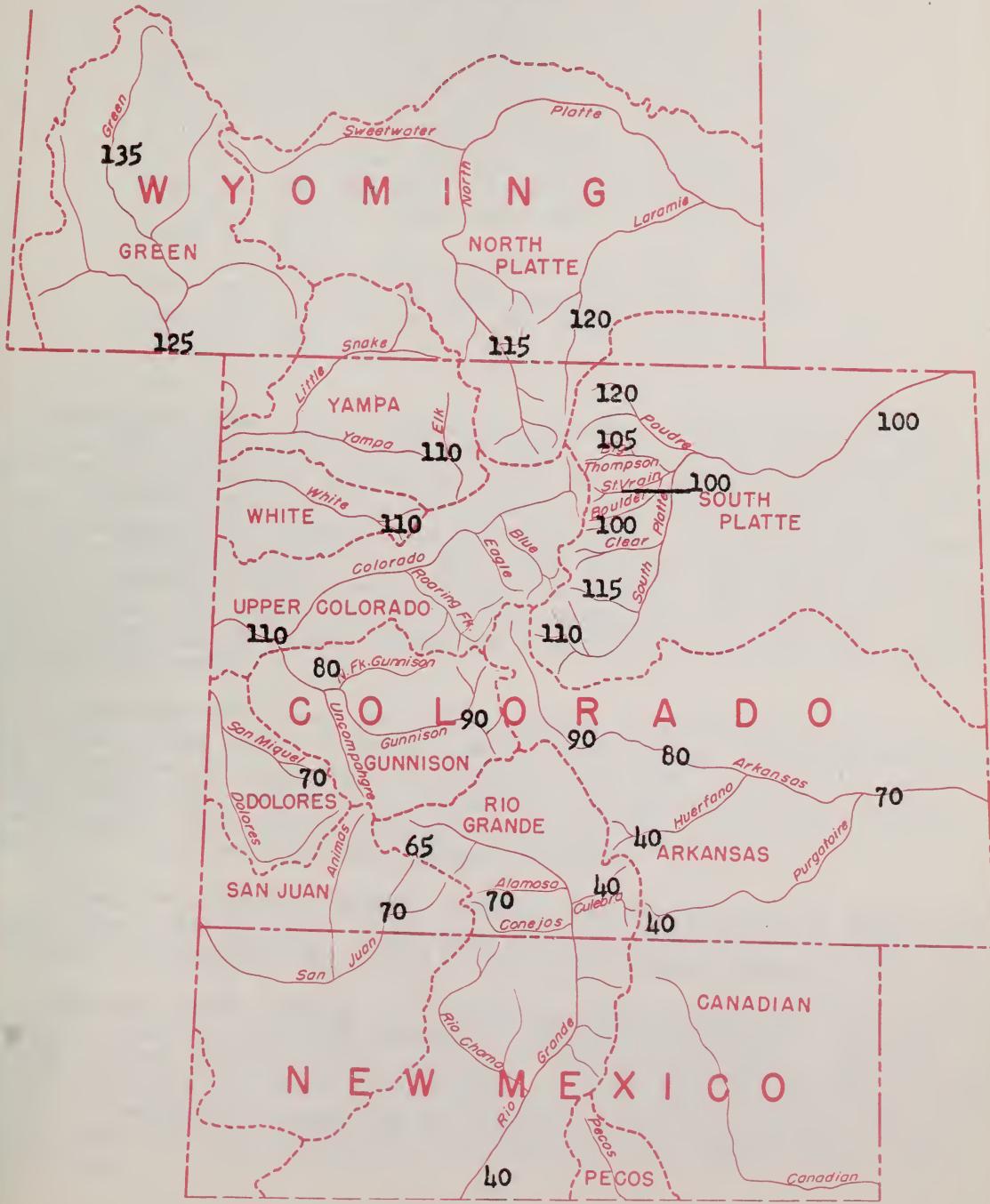
(1) Snow Survey measurements in Wyoming, Utah and Arizona are supplied by Snow Survey Supervisors in those states.



# WATER SUPPLY OUTLOOK

THE FIGURES OVERPRINTED BELOW INDICATE WATER SUPPLY OUTLOOK IN PERCENT OF NORMAL (1938-52) FOR IRRIGATED AREAS IN THE PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE DRAINAGE BASINS. IN ADDITION TO SNOW-MELT SEASON RUNOFF, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND IN SOME CASES OTHER FACTORS ARE INCLUDED AS THEY AFFECT TOTAL EXPECTED WATER SUPPLY. INSERTS APPLY TO MAIN DRAINAGES AS INDICATED AND MAY NOT APPLY TO SMALL TRIBUTARY STREAMS.

May 1, 1956





WATER SUPPLY OUTLOOK  
COLORADO RIVER, PLATTE RIVER  
ARKANSAS RIVER AND RIO GRANDE

May 1, 1956

Near the end of the snow season the water supply outlook continues fair to good in southern Wyoming and northern Colorado with normal or above summer streamflow in prospect. Less than normal flow is expected in the Arkansas, Gunnison and San Juan Rivers and their tributaries. The water supply outlook for the Rio Grande declined further during April. Water year 1956 will be only slightly better than for 1954 and 1955. Elsewhere in Colorado irrigation water supplies are much improved over the past two years.

In Arizona winter snowfall was light. Snowmelt season runoff is less than 50 percent of normal with near one-quarter of normal on most of the major streams.

Irrigation water supply outlook for most of Colorado continues to be improved over the past two years as of May 1. In the northern mountains of the state, including the headwaters of the Platte, Upper Colorado and Yampa Rivers the snow pack is 100 to 125 percent of normal. The snow pack declines to near normal on the Arkansas and Gunnison Rivers in central Colorado and is generally less than normal on the Rio Grande and San Juan and their tributaries in southern Colorado and northern New Mexico. The outlook for the Rio Grande in San Luis Valley is only slightly improved over a year ago. Along the Rio Grande in New Mexico streamflow is expected to be about the same as for the 1955 season.

Mountain snowfall over the entire southern Rocky Mountain region was very light during March and April except at the highest elevations in northern Colorado and adjacent areas in Wyoming. In April snow-melt was about normal, which has resulted in relatively wet mountain soils under the snow for this date. Most soil moisture stations show the soils to be wet to a depth of at least two feet from current snow-melt.

Streams were below normal for April in western Colorado and on the North Platte after a short period of increase in March but no material early season increases in streamflow were noted on the South Platte, Arkansas or Rio Grande.

The water supply outlook for Arizona declined during April and forecasts are not expected to exceed 40 percent of normal on any stream. Reservoir storage is down slightly from a year ago. In Utah snow cover on the Colorado River tributaries increased in the south and declined in northern Utah. Near normal streamflow is forecast for the Duchesne but half of normal on other tributaries. On the headwaters of the Green River in Wyoming snow is well above normal.

NORTH PLATTE

The May 1 snow pack on the North Platte drainage in Colorado and Wyoming



is about normal for this date which represents a substantial decline over two months ago. Snow-melt has occurred on low elevation snow courses and a general rise in stream flow is reported. Soil moisture under the snow is above normal in Wyoming and along the Continental Divide in Colorado. The inflow to the North Platte Reservoir system will be about 110 percent of normal for the snow-melt season in 1956. Storage in the four major reservoirs on the North Platte in Wyoming now totals about 1,000,000 acre-feet as compared to nearly 1,100,000 a year ago. Of this amount 720,000 acre-feet is assigned to the Kendrick Project and 310,000 to the older North Platte Project. Soil moisture conditions in irrigated areas of the North Platte Valley in eastern Wyoming and western Nebraska are fair. April was cool and dry.

On the Laramie River soil moisture conditions in the Laramie and Wheatland areas are poor. Reservoirs serving both areas are practically empty. The snow pack on the Laramie watershed continues to be very high and summer runoff will be considerably above normal.

#### SOUTH PLATTE

Water supply outlook for the South Platte is much improved over 1954 and 1955 but is not as good as indicated by high early season snow pack. Except for the watersheds of the Cache La Poudre and Upper South Platte, March and April snowfall has been much below average. Summer flow of Boulder and Saint Vrain Creeks will be near normal with slightly above normal flow expected for other tributaries and possibly up to 125 percent of normal on the Cache La Poudre, as compared to 60 to 70 percent of normal in 1955. On this latter watershed a few high elevation snow courses have near record high readings due to local storms during April. Five of the six soil moisture stations on the watershed indicate soils are relatively wet due to early snow-melt at medium elevations. Mountain soils are in better condition on May 1 than at any time since these soil moisture units were installed four years ago. Stream flow is just starting to increase.

In appraising the outlook, local shortages of water must be expected because demands usually exceed the normal supply in this highly developed irrigated area. Less water will be available from Colorado-Big Thompson than for the past two years. Unless heavy summer rains occur the lower South Platte can expect further shortages of water.

Storage in irrigation reservoirs is still below average but above May 1, 1955 on both the upper tributaries and the lower South Platte. Since stream-flow prospects have declined from earlier in the season, this shortage has become a serious factor affecting water supplies under some irrigation systems. In the Colorado-Big Thompson System there is now stored about 240,000 acre-feet as compared to 320,000 a year ago and over 500,000 on May 1, 1954. Of these amounts about 100,000 acre-feet is dead storage. Less than 25,000 acre-feet is available in Granby Reservoir. Inflow to Granby Reservoir from all sources will probably be around 300,000 acre-feet which will fall short of having the reservoir storage at half of capacity at the end of the season.

Scattered spring showers have improved surface soil moisture conditions in the past few days over much of the watershed but the general soil condition is still only fair. Most of the rainfall occurred in the northern half of the watershed.



#### ARKANSAS RIVER

The water supply outlook for the Arkansas Valley is only fair for 1956 but is improved over the past two years. On the upper watershed of the main stem of the river the snow pack is well above normal for May 1. This declines to near normal west of Salida. Along the Sangre de Cristo Range the only snow remaining is limited amounts at high elevations where there has been very little snow in this area during the winter months. Winter precipitation in the valley area has been deficient through the winter months and soils are dry. The summer flow of the river at Salida should be near normal as compared to about 70 percent of normal in 1955. Through the main irrigated valley flows will range down to 75 percent of normal as compared to about 60 percent a year ago excluding the flood period. About one-half of normal supplies will be available on the Huerfano, Cucharas and Purgatoire Rivers from snowmelt. Streamflow at Pueblo has been generally less than average during April. Storage in upstream and plains reservoirs has improved slightly over a year ago but is generally much less than average. John Martin Reservoir was emptied during April. The general water supply outlook is only fair but somewhat improved over the past two years.

#### COLORADO RIVER

The water supply outlook for most areas of western Colorado is still good in spite of less than normal snowfall during March and April. Summer runoff of the upper Colorado, Yampa and White Rivers should be above normal with less than normal runoff on other watersheds. Soils under the snow are wetter than usual for this date, principally because of warm temperatures in late March. April has been cool and streamflow is less than average, especially on the San Juan and its tributaries. The big decline in outlook was during March when except at highest elevations, there was a net loss in snow pack for the first time in 20 years of snow survey records.

Water supply should be adequate along the major streams except the Dolores River where some shortage will occur. On smaller tributary streams shortages may be expected in late season if summer rainfall is deficient.

The best outlook for snow-melt season streamflow is on the Upper Colorado and its tributaries. Above normal flow may also be expected on the Yampa and White Rivers. On the main Gunnison River the water supply outlook is slightly below normal. The San Juan and Dolores Rivers and their tributaries will have about two-thirds of normal flow during the 1956 season. The flow of the San Juan River through New Mexico should be about three-quarters of normal and adequate to meet demands.

Soil moisture conditions in nearly all of the irrigated sections of western Colorado are reported as good. Because of early snow-melt streamflow is generally above normal depending on daily temperatures. Except for Green Mountain Reservoir, a part of the Colorado-Big Thompson System, storage in west slope reservoirs is less than for May 1 a year ago. Prospects for improving storage is good.

In Arizona there is no improvement in the water supply outlook. There was very little snowfall during March or April. Current streamflow is 25 to 30 percent of normal.

Snow cover on the Upper Green River in Wyoming is 35 percent above average and a high runoff from this area is expected.



Inflow to Lake Mead will be about normal for the snow-melt season at about 9,500,000 acre-feet. This is close to the total for the summer periods of 1954 and 1955.

#### RIO GRANDE

After an extreme shortage of snowfall during March, April snowfall was also short of average. The water supply outlook for the Rio Grande and its tributaries in both Colorado and New Mexico declined substantially from fairly good prospects in the earlier winter months. The flow of the Rio Grande and tributaries will be only slightly improved over 1955 at about 65 percent of normal in San Luis Valley, 40 percent into the Middle Rio Grande districts and 25 percent or less into Elephant Butte.

Storage in San Luis Valley is about the same as a year ago and much less than average. The exception is Sanchez Reservoir on the Culebra River which has 13,000 acre-feet of stored water as compared to 6,000 a year ago. The outlook is extremely poor for the streams originated west of the Sangre de Cristo Range with near minimum flows expected.

In northern New Mexico El Vado has stored only 8,000 acre-feet. Storage in Elephant Butte and Caballo is only 170,000 acre-feet, less than 20 percent of average.

Streamflow through New Mexico has been a little over half of average during April but above that of a year ago.

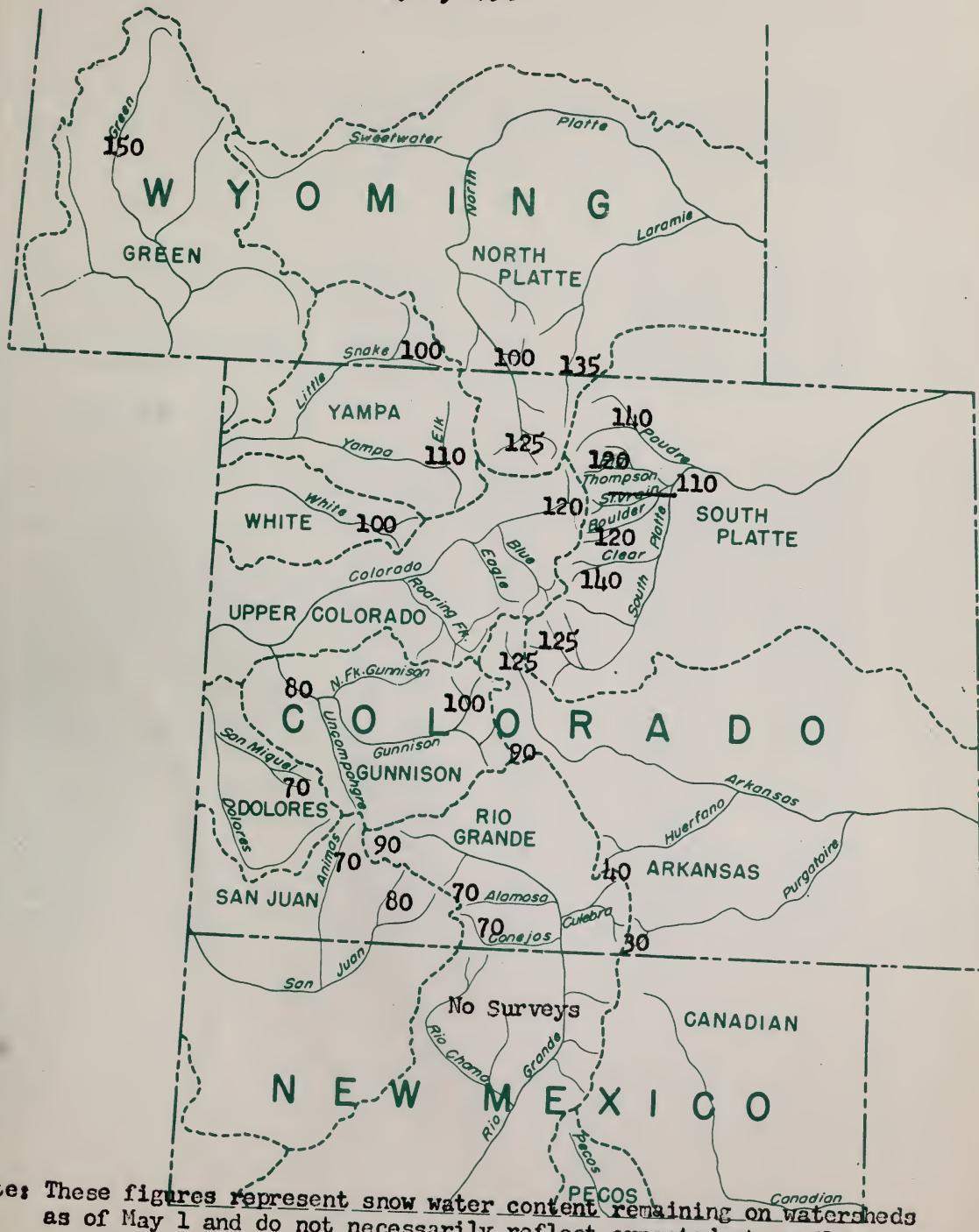
On the Pecos River snow-melt runoff will be near a minimum of record. The water supply outlook for the Carlsbad area is good because of carryover storage and good soil moisture conditions in irrigated areas.

Storage in Conchas Reservoir on the Tucumcari project is 240,000 acre-feet as compared to 130,000 a year ago. The water supply outlook is fair based on increased water in storage. Snow-melt runoff on Canadian River tributaries will be very short.



WATER CONTENT OF SNOW ON THE WATERSHEDS OF  
PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS  
BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH

In Percent of Normal  
May 1, 1956



Note: These figures represent snow water content remaining on watersheds as of May 1 and do not necessarily reflect expected streamflow. See water supply outlook or stream flow forecasts.



COOPERATIVE SNOW SURVEYS

STREAM FLOW FORECASTS

May 1, 1956

BASIN AND STREAM	April-Sept., Incl., Streamflow Acre Feet				15-year Average 1938-1952
	Forecast 1956	% of 15-yr Avg.	Measured Runoff 1954	1953	

GREEN

Green at Linwood, Utah	1,650,000	127	1,011,000	957,000	1,302,000
Little Snake at Lily	375,000	103	143,000	232,000	365,000
Elk at Clark	245,000	114	120,000	164,000	214,000
Yampa at Steamboat Spgs.	340,000	121	123,000	249,000	281,000
White at Meeker	350,000	104	183,000	313,000	336,000

COLORADO

Colorado nr Granby	270,000*	136	216,000*	197,000*	199,000*
Willow nr Granby	55,000	128	20,000	32,000	43,000
Frazer at Granby	120,000	119	20,000	102,000	101,000
Blue abv Green Mt.Res.	400,000	130	128,000	277,000	307,000
Colorado at Glenwood Spgs.l.	900,000*	123	830,000*	1,413,000*	1,540,000*
Roaring Fork at Glenwood	850,000*	109	364,000*	678,000*	777,000*
Plateau Creek at Collbran	45,000	73	32,000	41,000	62,000
Uncompahgre at Colona	120,000	71	59,000	114,000	170,000
Surface Cr. nr Cedaredge	14,000	78	12,000	11,000	18,000
Gunnison at Gr. Junction	1,175,000	78	342,000	953,000	1,510,000
San Juan at Rosa, N.M.	525,000	75	352,000	370,000	703,000
Piedra at Piedra	180,000	84	122,000	111,000	215,000
Los Pinos nr Bayfield	180,000*	79	169,000*	122,000*	228,000*
Florida nr Durango	50,000	72	40,000	34,000	69,000
Animas at Durango	350,000	67	300,000	315,000	522,000
La Plata at Hesperus	20,000	67	15,000	19,000	30,000
Dolores at Dolores	200,000	64	137,000	176,000	314,000
Colorado nr Grand Canyon, Arizona	9,500,000	94	4,006,000	5,447,000	10,063,000

\* Including diversions and storage

## ANSWERING YOUR QUESTIONS

### What is the best way to

get rid of a dog's fleas? Fleas can be a real pain for dogs. They can cause irritation, skin problems, and even infections. There are several ways to get rid of fleas on your dog:

1. Use a flea collar: Flea collars are a great way to keep fleas off your dog. They contain a chemical that kills fleas on contact. They are safe for most dogs and can last up to 6 months.

2. Use a flea spray: Flea sprays are another effective way to get rid of fleas. They are usually applied directly to the dog's skin or coat. Be sure to follow the instructions on the label carefully.

3. Use a flea comb: A flea comb is a special type of comb designed to remove fleas from a dog's coat. It has fine metal teeth that can catch the tiny fleas as they try to crawl through the comb.

4. Use a flea trap: Flea traps are electronic devices that attract fleas with a pheromone lure. Once the fleas are caught in the trap, they are killed.

5. Use a flea shampoo: Flea shampoos are specially formulated to kill fleas on your dog. They are usually applied to the dog's coat and left on for a few minutes before being rinsed off.

6. Use a flea repellent: Flea repellents are products that repel fleas from your dog. They are usually applied to the dog's coat and can last for several weeks.

7. Use a flea treatment: Flea treatments are medications that kill fleas on your dog. They are usually applied to the dog's coat and can last for several weeks.

8. Use a flea repellent: Flea repellents are products that repel fleas from your dog. They are usually applied to the dog's coat and can last for several weeks.

STREAM FLOW FORECASTS, May 1, 1956

BASIN AND STREAM	April-September, incl., Streamflow, Acre Feet				
	Forecast 1956	% of 15 yr.Ave.	Measured Runoff 1954	1953	10 year Avg. 1938-52
<b>RIO GRANDE</b>					
South Fork at South Fork	120,000	91	67,000	80,000	132,000
Rio Grande at Del Norte	375,000*	66	294,000*	302,000*	565,000*
Alamosa above Terrace Res.	60,000	77	39,000	52,000	78,000
Conejos at Mogote	170,000	78	117,000	143,000	219,000
Culebra at San Luis	12,000	40	12,000	15,000	30,000
Rio Chama at Park View	140,000	61	108,000	114,000	230,000
Costilla at Costilla	13,000	38	17,000	20,000	34,000
Rio Grande at Otowi Bridge	325,000*	39	196,000*	298,000*	835,000*
Rio Grande at San Marcial	150,000*	25	44,000*	115,000*	604,000*
Pecos at Pecos	25,000	40	25,000	41,000	62,000
<b>NORTH PLATTE</b>					
Sweetwater at Alcova	84,000	115	42,000	86,000	
North Platte at Saratoga	725,000	110	428,000	657,000	
Medicine Bow near Hanna	122,000	110	60,000	111,000	
Laramie at Jelm	125,000**	119	46,000*	64,000	105,000*
Laramie at Lookout	90,000	110	8,000	28,000	82,000
<b>SOUTH PLATTE</b>					
Poudre at Canon	275,000**	125	75,000**	114,000**	220,000**
Big Thompson at Drake	115,000**	104	44,000**	60,000**	111,000**
Saint Vrain at Lyons	90,000	102	30,000	61,000	88,000
Boulder at Grodell	55,000	100	27,000	52,000	55,000
Clear Creek at Golden	145,000**	103	52,000**	117,000**	141,000**
<b>ARKANSAS</b>					
Arkansas at Salida	325,000*	101	158,000*	320,000*	323,000*
Arkansas at Pueblo	315,000*	79	96,000*	250,000*	401,000*
Cucharas at La Veta	6,000	38	6,000	5,000	16,000
Purgatoire at Trinidad	18,000	32		36,000	57,000

\* Including Diversions and storage

\*\* Net Flow



STATUS OF RESERVOIR STORAGE

May 1, 1956

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous. A.F.)	USABLE STORAGE - 100 ACRE FEET			
			About May 1, 1956		1954	15-year Avg.* 1938-52
<b>MISSOURI RIVER</b>						
Poudre River	Windsor	18.6	8.2	3.1	6.2	12.9
" "	Cache la Poudre	9.5	6.0	5.3	6.0	7.9
" "	Fossil Creek	11.6	4.1	3.8	5.5	8.6
" "	Terry Lake	8.2	5.7	4.9	4.1	5.1
" "	Halligan	6.4	1.9	4.8	5.0	2.2
" "	Chamber's Lake	8.8	2.6	2.7	1.9	3.1
" "	Cobb Lake	34.3	0.0	0.0	7.0	4.6
" "	Black Hollow	8.0	0.8	0.9	3.2	3.3
" "	Horsetooth	143.5	85.4	103.8	121.6	- *
Big Thompson River	Lake Loveland	14.3	7.2	4.9	7.2	6.1
" " "	Boyd Lake	44.0	8.1	0.0	7.9	16.8
" " "	Lone Tree	9.2	8.6	8.0	7.6	8.3
" " "	Mariano	5.4	1.7	0.3	3.4	3.3
" " "	Carter Lake	112.4	58.0	65.5	41.9	- *
St. Vrain River	Union	12.7	1.7	1.0	6.1	7.5
South Platte River	Eleven Mile	81.9	24.4	17.3	81.9	75.8
" " "	Cheeseman	79.0	29.8	21.9	22.8	60.4
" " "	Marston	18.9	12.2	12.8	11.8	15.8
" " "	Barr Lake	32.2	17.4	14.9	13.9	23.9
" " "	Milton	24.4	2.3	0.8	3.8	14.4
" " "	Standley	18.5	9.0	5.5	6.9	14.0
" " "	Marshall	10.3	1.8	0.4	0.9	4.8
" " "	Antero	33.0	0.0	10.2	10.2	15.2
" " "	Horse Creek	20.6	12.0	5.6	9.9	10.3
" " "	Riverside	57.5	27.3	16.2	45.4	50.1
" " "	Empire	37.7	16.4	10.0	27.5	31.1
" " "	Jackson Lake	35.4	33.2	33.1	31.2	34.4
" " "	Prewitt	32.8	0.0	4.4	10.5	23.9
" " "	Point of Rocks	70.0	45.0	42.3	58.5	61.2
" " "	Julesburg	28.2	21.2	21.2	21.9	22.3
North Platte River	Kingsley	1995.0	923.4	1232.0	1589.8	1219.5 *
" " "	Sutherland	185.0	52.7	49.8	45.0	47.7
" " "	Minatare	60.8	32.3	35.6	35.5	41.0
" " "	Alcova	190.0	187.6	187.7	186.8	132.2
" " "	Seminoe	1025.0	283.7	364.1	268.3	338.5 *
" " "	Guernsey	46.0	15.1	30.8	44.6	36.3
" " "	Pathfinder	1045.5	549.4	513.2	919.0	493.4
Laramie River	Wheatland	70.4	6.0	3.5	12.1	44.1
<b>ARKANSAS RIVER</b>						
Arkansas River	Twin Lakes	57.9	12.5	13.7	13.6	21.4
" "	Sugar Loaf	17.4	6.5	5.0	5.3	8.0
" "	Clear Creek	11.4	4.3	2.1	0.5	4.2
" "	Meredith	41.9	0.0	0.0	0.0	17.1
" "	Horse Creek	26.9	0.0	0.0	0.0	9.2
" "	Adobe Creek	61.6	0.0	0.0	0.0	25.7
" "	Cucharas	40.0	11.4	0.0	0.0	5.9
" "	John Martin	655.0	0.0	0.0	0.0	67.2 *
" "	Great Plains	150.0	0.0	0.0	0.0	55.2
Purgatoire River	Model	15.0	0.0	0.0	0.0	4.2

\*Some for shorter periods



STATUS OF RESERVOIR STORAGE

May 1, 1956

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous.A. Ft.)	USABLE STORAGE-1000 ACRE-FEET About May 1, 1956			
			1956	1955	1954	15-yr. Avg. 1938-52
<b>COLORADO DRAINAGE</b>						
Taylor River	Taylor Park	106.2	46.2	61.6	58.3	70.6
Los Pinos River	Vallecito	126.3	60.7	65.3	45.0	42.9*
Groundhog Creek	Groundhog	21.7	5.6	4.0	7.2	11.4
Blue River	Green Mountain	146.9	33.2	51.8	45.8	55.1*
Colorado River	Lake Mead	27,935.0	10,748.0	11,271.0	15,350.0	18,697.0
Colorado River	Lake Havasu	688.0	659.9	672.6	647.9	571.3*
Colorado River	Lake Mohave	1,810.0	1769.7	1766.0	1799.0	--
Colorado River	Granby	467.5	24.9	151.2	360.5	139.6*
<b>SALT AND GILA DRAINAGE</b>						
Salt River	Roosevelt	1382.0	200.2	341.5	717.3	556.3
" "	Horse Mesa	245.0	241.5	241.2	236.4	207.1
" "	Mormon Flat	58.0	56.5	56.3	56.9	43.6
" "	Saguaro	70.0	67.8	68.6	54.5	50.5
Verde River	Bartlett	180.0	63.8	55.0	130.8	85.1*
	Horseshoe	1430.0	2.2	1.3	12.5	31.0*
Aqua Fria River	Carl Pleasant	173.0	26.8	23.4	44.6	35.7
Gila River	San Carlos	1200.0	36.0	0.0	26.1	198.6
<b>RIO GRANDE</b>						
	Rio Grande	45.0	6.5	7.5	7.0	16.5
	Santa Maria	45.0	3.1	3.4	2.8	11.0
	Sanchez	103.0	13.0	5.9	6.3	15.4
	Terrace	17.7	2.9	1.5	2.0	4.7
	Continental	26.7	3.7	4.1	5.6	8.9
	Platoro	60.0	0.0	0.0	0.0	--
	Elephant Butte	2273.7	164.6	122.1	90.6	870.3
	Caballo	356.0	5.5	8.7	32.9	142.1
CHAMA RIVER	El Vado	226.0	9.0	0.0	0.0	104.1
CANADIAN RIVER	Conchas	600.0	236.4	131.2	153.0	272.8*
PECOS RIVER	Alamogordo	148.0	--	80.0	13.2	46.2
	McMillan-Avalon	45.0	19.9	14.6	0.9	12.0

\*Some for shorter periods

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COOPERATIVE SNOW SURVEYS

SUMMARY OF SNOW MEASUREMENTS

May 1, 1956

WATERSHEDS	No. of Courses Averaged	Years of Record	May 1, 1956 Water Contents as percent of		
			1955	1954	Average
<b>PLATTE RIVER</b>					
Sweetwater	2	16-19	131	109	124
North Platte River	10	18-20	140	173	105
Laramie River	7	15-20	174	192	109
South Platte River	3	16-20	211	444	123
Poudre River	6	16-20	235	238	143
Big Thompson River	2	15-18	209	192	120
St. Vrain River	1	20	225	222	102
Boulder Creek	2	17-20	160	174	105
Clear Creek	2	14-20	308	291	144
ARKANSAS RIVER	7	15-20	198	300	99
<b>COLORADO RIVER</b>					
Colorado River*	20	8-20	257	314	122
Roaring Fork	4	10-20	203	268	97
Plateau Creek	2	16-19	91	141	76
Yampa River	5	20	128	232	93
White River	2	20	208	587	105
Gunnison River	8	8-20	112	185	79
Dolores River	3	19-20	195	-	69
Green River (Wyo.)	6	19-20	225	173	152
San Juan River	3	16-20	143	468	91
Animas River	3	19-20	138	-	26
<b>RIO GRANDE</b>					
Rio Grande (Colo.)	10	16-20	204	285	64
Upper Rio Grande	3	17-20	153	742	84
Alamosa River	2	16-19	189	146	82
Conejos River	2	19-20	-	-	58
Culebra River	1	16	-	-	-

\* Above Glenwood Springs



VALLEY PRECIPITATION<sup>1/</sup>

Division Averages and Departures<sup>2/</sup>

DRAINAGE DIVISIONS	Fall		Winter	
	Sept.-Oct.-Nov. 1955 Average	Departure <sup>2/</sup>	December thru March Average	Departure <sup>2/</sup>
NORTH PLATTE RIVER, Wyo.	2.07	-1.14	3.72	-.64
SOUTH PLATTE RIVER	1.80	-1.35	1.89	-.83
ARKANSAS RIVER	1.45	-1.53	2.68	-.88
COLORADO RIVER	3.16	-1.52	7.85	+.47
GREEN River, Wyo.	2.26	-.49	2.49	-.23
SAN JUAN River, New Mexico	.65	-2.49	3.14	-.62
CANADIAN RIVER, New Mexico	2.55	-1.09	1.04	-1.61
RIO GRANDE, Colo.	.83	-1.63	1.82	-.10
RIO GRANDE (N) New Mexico	1.16	-2.65	2.93	-2.01
RIO GRANDE (S) New Mexico	1.66	-.86	1.09	-.73
PECOS River, New Mexico	3.26	-.47	1.34	-.85

1/ Preliminary analysis by U. S. Weather Bureau from data furnished by Meteorological Service of Canada and U. S. Weather Bureau.

2/ Departure from 15-year (1938-1952) drainage division average.

3/ Selected Stations.



COOPERATIVE SNOW SURVEYS  
May 1, 1956

DRAINAGE BASIN and SNOW COURSE	Number	Elev.	Snow Course Measurements								
			1956			Past Record					
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.)	1955	1954	Average 1938-52	Years of Record	
**											
COLORADO RIVER DRAINAGE											
COLORADO RIVER (Above Glenwood Springs)											
Cameron Pass*	5J1	10300	4/27	88	38.9	16.9	17.5	24.3	20		
Park View*	6J2	9200	4/30	24	6.4	1.5	0.8	7.9	20		
Phantom Valley	5J4	9300	4/27	24	8.8	0.0	0.0	6.8	20		
Hoosier Pass	6K1	11400	4/30	47	15.0	5.9	3.0	12.0	20		
Berthoud Pass	5K3	9700	4/30	48	17.4	9.3	4.2	15.8	20		
Tennessee Pass	6K2	10200	4/30	30	11.2	0.0	0.0	6.8	20		
M.Fork Camp.Gr.	5K4	9000	4/27	21	5.3	0.0	0.0	6.6	20		
Fiddler Gulch	6K5	11000	4/30	56	19.4	7.7	7.8	16.2	18		
Lulu	5J7	10200	4/28	69	25.1	11.5	12.2	20.0	16		
Willow Creek P.	6J5	9500	4/30	39	14.2	4.2	2.7	13.5	18		
N.Inlet Grand L.	5J9	9000	4/28	27	8.6	0.0	0.0	7.8	18		
Lake Irene	5J10	10600	4/29	82	30.9	14.6	16.9	24.5	18		
Arrow	5K6	9900	4/29	31	8.5	4.6	0.0	7.8	18		
Lapland	5K7	9500	5/1	28	10.2	0.8	0.4	9.0	18		
Fremont Pass	6K8	11400	4/24	68	23.6	14.2	12.0	18.7	20		
Lynx Pass	6J6	9100	5/1	18	6.5	3.0	0.0	8.5	20		
Shrine Pass	6K9	10500	4/25	64	22.9	12.2	10.4	18.9	14		
Grizzly Peak	5K9	11250	4/24	83	29.4	10.2	12.6	20.3	14		
Glen-Mar Ranch	5K10	8850	4/27	13	3.4	0.0	0.0	6.6	9		
Monarch Lake	5J14	8500	5/1	32	9.2	6.1	0.0	5.9	8		
Granby	5J16	8700	5/1	14	4.7	0.0	0.0	--	7		
Grand Lake	5J19	8600	4/27	22	7.4	0.0	0.0	--	7		
Berthoud Summit	5K14	11300	4/26	71	24.8	14.7	12.1	--	5		
Frazer View	5K15	10600	4/26	46	15.8	8.0	3.3	--	5		
Gore Pass	6J11	8900	5/1	25	8.2	7.2	0.0	--	5		
Frisco	6K13	9300	4/26	26	8.8	0.0	0.0	--	5		
Snake River	5K16	9700	4/24	26	9.2	0.0	0.0	--	5		
Summit Ranch	6K14	10000	4/30	30	9.6	3.8	0.0	--	5		
Vail Pass	6K15	10000	4/25	55	23.7	9.8	7.9	--	4		
Pando	6K19	9500	4/25	32	11.5	5.0	0.0	--	4		
Milner Pass	5J24	10100	4/29	47	16.7	0.0	4.4	--	4		
ROARING FORK											
Ind.Pass Tunnel	6K4	10700	4/30	54	19.1	7.5	7.6	17.9	20		
North Lost Trail	7K1	9200	4/30	10	3.2	2.3	0.0	10.3	20		
Nast	6K6	8700	4/28	4	1.0	0.0	0.0	1.4	19		
Ivanhoe	6K10	10400	4/23	67	24.0	13.2	9.9	19.1	10		
GREEN RIVER											
Dutch Joe	9G5	8700	4/26	15	4.9	1.9	0.9	4.2	19		
Mulligan Park	9G1	8900	4/23	22	8.4	6.0	8.5	6.5	20		
Kendall R.S.	10F15	7900	4/24	30	11.8	3.4	2.2	6.1	20		
Lomis Park	10F16	8500	4/23	45	20.2	12.8	17.3	10.3	20		
Snyder Basin R.S.	10F17	8040	4/30	27	11.9	2.9	7.0	8.5	20		
Piney-LaBarge	10G10	8820	4/30	39	18.6	6.6	7.9	14.0	20		

\* On adjacent drainage

\*\* Courses with less than 15 years record in period 1938-52 have all years prior to 1952 averaged.

NS - No Survey



COOPERATIVE SNOW SURVEYS  
May 1, 1956

Drainage Basin and Snow Course	Number	Elev.	Snow Course Measurements							Years of Record	
			1956			Past Record					
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.)	1955	1954	Average 1938-52		
COLORADO RIVER DRAINAGE											
YAMPA RIVER											
Dry Lake	6J1	8300	4/27	32E	15.5E	10.0	0.0	15.8	20		
Columbine Lodge*	6J3	9300	4/30	48	23.2	19.3	8.7	20.6	20		
Elk River	6J4	8700	4/27	29	12.5	8.4	3.7	12.8	20		
Lynx Pass*	6J6	9100	5/1	18	6.5	3.0	0.0	8.5	20		
Routt Line	6J8	9700	4/30	83	39.7	35.6	12.8	---	5		
Rabbit Ears	6J9	9550	4/30	66	30.4	23.4	15.6	---	5		
Yampa View	6J10	8500	4/30	11	4.8	6.3	0.0	---	5		
Old Battle*	6H10	9800	4/29	67	25.8	26.0	24.2	33.7	20		
WHITE RIVER											
Burro Mountain	7K2	9000	5/1	33	14.6	12.5	4.5	15.2	20		
Rio Blanco	7J1	8500	5/1	26	12.3	0.5	0.0	10.4	20		
PLATEAU CREEK											
Mesa Lakes	7K4	10000	5/1	22	10.7	11.4	5.7	15.0	19		
Trickle Divide	7K5	10000	4/29	61	24.8	27.8	19.5	31.9	16		
GUNNISON RIVER											
Crested Butte	6L1	9000	5/1	8	2.3	0.0	0.0	7.3	20		
Park Cone	6L2	9700	5/1	32	10.4	2.4	0.0	5.8	19		
Alexander Lake	7K3	10000	4/30	49	18.7	21.0	14.1	24.4	19		
Ironton Park	7M6	9800	4/30	8	3.2	2.5	0.0	8.5	19		
Trickle Divide	7K5	10000	4/29	61	24.8	27.8	19.5	31.9	16		
Park Reservoir	7K6	9500	4/28	53	20.6	24.4	16.0	27.4	16		
Porphyry Creek	6L3	10800	5/1	51	16.9	10.3	4.0	17.9	16		
Lake City	7M8	10300	5/1	7	2.1	0.0	0.0	2.8	8		
Spring Cr. Pass*	6M13	10900	5/2	16	4.7	2.5	1.0	---	7		
Cochetopa Pass*	6L6	10000	5/1	11	2.9	0.0	0.0	---	7		
McClure Pass	7K8	9500	4/30	13	5.0	9.5	0.0	---	6		
Red Mt. Pass	7M15	11000	4/30	72	31.0	26.8	17.3	---	5		

\*On adjacent drainage

NS - No survey

\*\*Courses with less than 15 years of record in period 1938-52 have all years prior to 1952 averaged.

E - Estimated - Lake filled with water.

## EXPLANATION OF TABLES

Period of Review	INTERIM STATEMENT						INTERIM STATEMENT Date Received
	Period Covered	Period Covered	Period Covered	Period Covered	Period Covered	Period Covered	
ADMITTED WITH STANDARDS							
01	0.21	0.19	0.06	20.47	381	75.1	0.15
02	0.06	0.5	1.01	1.07	24	0.14	0.01
03	0.01	1.1	1.3	2.14	82	75.0	0.02
04	0.0	0.0	0.0	0.0	12	1.0	0.0
05	—	0.01	2.71	1.02	38	75.0	0.02
06	—	0.01	0.05	0.02	38	75.0	0.02
07	—	0.0	1.6	0.0	11	0.0	0.02
08	7.70	5.15	0.05	0.05	73	75.0	0.02
ADMITTED WITHOUT STANDARDS							
09	0.15	0.0	0.0	0.01	11	75.0	0.02
10	0.01	0.0	0.0	0.01	30	75.0	0.02
TOTALS							
01	0.72	0.7	1.02	7.02	50	75.0	0.02
02	7.71	7.41	0.42	0.42	70	75.0	0.02
ADMITTED WITH STANDARDS							
03	0.1	0.0	0.0	0.0	0	75.0	0.02
04	0.11	0.0	0.0	0.0	0	75.0	0.02
05	0.08	0.07	0.07	0.0	0	75.0	0.02
06	0.07	0.07	0.07	0.0	0	75.0	0.02
07	0.01	0.01	0.01	0.0	0	75.0	0.02
08	0.01	0.01	0.01	0.0	0	75.0	0.02
09	0.01	0.01	0.01	0.0	0	75.0	0.02
10	0.01	0.01	0.01	0.0	0	75.0	0.02
ADMITTED WITHOUT STANDARDS							
01	0.0	0.0	0.0	0.0	0	75.0	0.02
02	0.0	0.0	0.0	0.0	0	75.0	0.02
03	0.0	0.0	0.0	0.0	0	75.0	0.02
04	0.0	0.0	0.0	0.0	0	75.0	0.02
05	0.0	0.0	0.0	0.0	0	75.0	0.02
06	0.0	0.0	0.0	0.0	0	75.0	0.02
07	0.0	0.0	0.0	0.0	0	75.0	0.02
08	0.0	0.0	0.0	0.0	0	75.0	0.02
09	0.0	0.0	0.0	0.0	0	75.0	0.02
10	0.0	0.0	0.0	0.0	0	75.0	0.02

ADMITTED DURING PERIOD

PERIOD 01 - 05

PERIOD 06 - 10

PERIOD 11 - 15

PERIOD 16 - 20

PERIOD 21 - 25

PERIOD 26 - 30

PERIOD 31 - 35

PERIOD 36 - 40

PERIOD 41 - 45

PERIOD 46 - 50

PERIOD 51 - 55

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PERIOD 704 - 705

PERIOD 706 - 707

COOPERATIVE SNOW SURVEYS

May 1, 1956

Drainage Basin and Snow Course	Snow Course Measurements									
	Number	Elev.	1956			Past Record			Years of Record	
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Water Content (In.)	1955	1954	1938-52	
										**

COLORADO RIVER DRAINAGE

SAN JUAN RIVER

Wolf Creek Pass*	6M1	10000	4/30	53	26.8	17.5	3.5	28.2	20
Upper San Juan	6M3	10000	4/30	58	29.3	21.8	8.4	32.8	20
Granite Peaks	7M7	7950	4/30	0	0.0	0.0	0.0	0.8	16
La Plata	7M10	8700	4/28	5	2.2	0.0	0.0	--	6
Wolf Creek Summit	6M17	11000	4/30	84	34.5	21.3	20.8	--	5

ANIMAS RIVER

Silverton Sub.S.	7M4	9400	4/30	0	0.0	0.0	0.0	1.0	20
Ironton Park	7M6	9800	4/30	8	3.2	2.5	0.0	8.5	19
Cascade	7M5	8850	4/30	0	0.0	0.0	0.0	3.5	20
Spud Mt.	7M11	10700	4/30	54	23.7	17.1	13.0	--	5
Molas Lake	7M12	10500	4/30	10	4.2	0.0	0.0	--	5
Howardville	7M13	9800	4/30	8	2.9	2.3	0.0	--	5
Mineral Creek	7M14	10300	4/30	21	8.5	8.3	0.0	--	5
Red Mt. Pass	7M15	11000	4/30	72	31.0	26.8	17.3	--	5

DOLORES RIVER

Rico	7M1	8700	4/30	0	0.0	0.0	0.0	1.4	19
Telluride	7M2	8600	4/29	0	0.0	0.0	0.0	1.3	20
Lizard Head	7M3	10300	4/29	34	13.0	6.7	0.0	15.9	19
Trout Lake	7M9	9700	4/29	23	8.3	7.6	0.0	--	7

\*On adjacent drainage

\*\*Courses with less than 15 years record in period 1938-52 have all years prior to 1952 averaged.

NS - No survey



May 1, 1956

Drainage Basin and Snow Course	Snow Cover Measurements								
	Number	Elev.	1956			Past Record			Years of Record
			Date of Survey	Snow Depth (In.)	Water Content (In.)	1955	1954	Average 1938-52	
RIO GRANDE DRAINAGE									
RIO GRANDE IN COLORADO									
Wolf Creek Pass	6M1	10000	4/30	53	26.8	17.5	3.5	28.2	20
Upper Rio Grande	6M2	9350	5/1	0	0.0	0.0	0.0	2.5	20
Silver Lakes	6M4	9600	4/26	0	0.0	0.0	0.0	1.1	19
River Springs	6M5	9300	5/1	0	0.0	0.0	0.0	1.0	19
LaVeta Pass #2	5M1	9300	4/30	0	0.0	0.0	1.0	4.1	20
Summitville	6M6	11500	5/3	58	20.4	10.7	13.9	23.7	16
Cumbres Pass #2	6M7	10000	4/30	21	10.0	0.0	0.0	17.2	20
Santa Maria	6M8	9700	5/1	0	0.0	0.0	0.0	1.1	17
Culebra	5M3	10000	4/30	0	0.0	0.0	1.2	9.7	16
Ft. Garland	5M4	8200	5/4	0	0.0	0.0	0.0	0.6	16
Platoro	6M9	9950	4/27	23	8.5	6.8	1.2	---	7
West Conejos	6M10	9450	4/27	0	0.0	0.0	0.0	---	7
La Manga	6M11	10100	4/27	41	17.3	12.7	4.9	---	7
Pyramid	6M12	10300	5/2	4	1.6	2.1	0.0	---	7
Spr.Creek Pass	6M13	10900	5/2	16	4.7	2.5	1.0	---	7
Pool Table Mt.	6M14	10000	4/26	0	0.0	0.0	0.0	---	7
Lake Humphreys	6M15	9300	4/26	0	0.0	0.0	0.0	---	7
Cochetopa Pass	6L6	10000	4/30	11	2.9	0.0	0.0	---	7
Howardville	7M13	9800	4/30	8	2.9	0.0	0.0	---	5
Red Mt. Pass	7M15	11000	4/30	72	31.0	26.8	17.3	---	5
Porcupine	6M16	10400	5/2	12	3.6	4.1	0.0	---	5
Wolf Creek Summit	6M17	11000	4/30	84	34.5	213.	20.8	---	5
UPPER RIO GRANDE									
Wolf Creek Pass	6M1	10000	4/30	53	26.8	17.5	3.5	28.2	20
Upper Rio Grande	6M2	9350	4/29	0	0.0	0.0	0.0	2.5	20
Santa Maria	6M8	9700	5/1	0	0.0	0.0	0.0	1.1	17
ALAMOSA RIVER									
Silver Lakes	6M4	9640	4/26	0	0.0	0.0	0.0	1.1	19
Summitville	6M6	11500	5/3	58	20.4	10.7	13.9	23.7	16
CONEJOS RIVER									
River Springs	6M5	9300	5/1	0	0.0	0.0	0.0	1.0	19
Cumbres Pass #2	6M7	10000	4/30	21	10.0	0.0	0.0	17.2	20
Platoro	6M9	9950	4/27	23	8.5	6.8	1.2	---	7
West Conejos	6M10	9450	4/27	0	0.0	0.0	0.0	---	7
La Manga	6M11	10100	4/27	41	17.3	12.7	4.9	---	7
CULEBRA RIVER									
Culebra	5M3	10000	4/3	0	0.0	0.0	1.2	9.7	16

NS - No survey

\*\* Courses with less than 15 years record in period 1938-52 have all year prior to 1952 averaged.



-15-  
COOPERATIVE SNOW SURVEYS

May 1, 1956

Drainage Basin and Snow Course	Number	Elev.	Snow Cover Measurement						Years of Record					
			Date of Survey	Snow Depth (In.)	Water Content (In.)	Past Record								
						1956	1955	1954	Average 1938-52					
PLATTE RIVER DRAINAGE														
<b>SWEETWATER RIVER</b>														
Grannier Meadows	8G4	9000	5/2	39	15.7	13.1	16.0	13.9	19					
South Pass*	8G3	9000	5/2	44	19.9	14.0	16.8	14.8	16					
Larsen Creek	9G6	9000	5/3	27	10.6	1.7	0.0	--	6					
<b>NO. PLATTE RIVER</b>														
Cameron Pass	5J1	10340	4/27	88	38.9	16.9	17.5	24.3	20					
Park View	6J2	9200	4/30	24	6.4	1.5	0.8	7.9	20					
Columbine Lodge	6J3	9300	4/30	48	23.2	19.3	8.7	20.6	20					
Willow Cr. Pass*	6J5	9500	4/30	39	14.2	4.2	2.7	13.5	18					
Northgate	6J7	8500	4/30	9	2.1	0.0	0.0	--	6					
Bottle Creek	6H8	8200	4/29	25	11.0	10.0	7.0	9.2	20					
Webber Spring	6H9	9000	4/29	34	15.4	13.0	9.0	16.4	20					
Old Battle	6H10	9800	4/29	73	33.8	25.9	24.2	33.7	20					
N. French Creek	6H4	10200	4/28	74	33.0	26.3	26.5	33.4	18					
North Garrett Cr.	6H5	9400	4/28	47	19.3	16.9	14.9	21.7	20					
Ryan Park	6H6	8400	4/28	12	4.2	7.7	3.2	7.9	20					
Spring Creek	6H7	9000	4/28	31	13.2	12.8	8.2	--	7					
Albany	6H11	9400	4/25	30	12.0	4.1	2.0	--	7					
La Bonte	5G2	8450	4/30	0	0.0	0.0	0.0	--	7					
Boxelder	5G1	9000	4/30	5	1.4	6.2	1.4	--	6					
<b>LARAMIE RIVER</b>														
Deadman Hill	5J6	10200	4/30	65	24.2	14.6	11.2	17.6	17					
Roach	5J12	9800	4/29	67	25.8	16.2	15.7	21.1	15					
Mc Intyre	5J15	9100	5/2	38	12.6	6.1	4.4	--	7					
Brooklyn Lake	6H1	10200	5/1	63	27.8	17.5	18.0	23.6	20					
Fox Park	6H12	9200	4/29	14	3.9	0.0	0.0	7.5	20					
Pole Mtn. #2*	5H1	8700	5/1	0	0.0	0.0	0.4	3.4	19					
Libby Lodge	6H3	8700	4/29	18	6.3	3.6	1.5	6.8	20					
Hairpin Turn	6H2	9500	4/29	36	13.1	6.7	6.6	11.4	20					
Albany	6H11	9400	4/28	30	12.0	4.1	2.0	--	7					
<b>POUDRE RIVER</b>														
Cameron Pass	5J1	10300	4/27	88	38.9	16.9	17.5	24.3	20					
Chambers Lake	5J2	9000	4/30	21	9.0	0.0	0.8	4.4	20					
Big South	5J3	8600	4/30	4	1.4	0.0	0.5	0.7	20					
Deadman Hill	5J6	10200	4/30	65	24.2	14.6	11.2	17.6	17					
Lake Irene*	5J10	10600	4/29	82	30.9	14.6	16.9	24.5	18					
Hour Glass Lake	5J11	9500	5/1	31	9.7	2.3	1.1	8.2	16					
Red Feather	5J20	9000	4/30	15	5.3	1.6	0.0	--	7					
Lost Lake	5J23	9300	4/30	34	13.5	4.1	3.0	--	5					

\*On adjacent drainage

NS No survey

\*\* Courses with less than 15 years record in period 1938-52 have all years prior to 1952 averaged.

1920-21 - 1921-22

-16-  
COOPERATIVE SNOW SURVEYS

May 1, 1956

Drainage Basin and Snow Course	Number	Elev.	Date of Survey	Snow Cover Measurements					Years of Record			
				1956		Past Record						
				Snow Depth (In.)	Water Content (In.)	Water Content (In.)	1955	1954	Average			
**												
PLATTE RIVER DRAINAGE												
<b>BIG THOMPSON RIVER</b>												
Lake Irene*	5J10	10600	4/29	82	30.9	14.6	16.9	24.5	18			
Hidden Valley	5J13	9550	4/30	48	15.0	7.4	7.1	13.8	15			
Deer Ridge	5J17	9050	4/30	8	3.4	0.7	0.5	--	7			
Longs Peak	5J22	10500	4/29	49	16.0	7.1	5.3	--	5			
<b>ST. VRAIN RIVER</b>												
Wild Basin	5J5	10000	5/1	38	15.3	6.8	6.9	14.9	20			
Copeland Lake	5J18	8600	5/1	0	0.0	0.0	0.7	--	7			
Ward	5J21	9500	4/30	21	8.4	0.0	0.0	--	6			
<b>BOULDER CREEK</b>												
E.Port Moffat T.	5K1	9400	4/30	9	3.4	1.0	0.5	2.3	20			
University Camp	5J8	10300	4/30	52	23.7	16.0	15.1	23.7	17			
Moffat	5K12	9400	4/30	26	10.4	1.2	0.6	--	6			
<b>CLEAR CREEK</b>												
Loveland Pass	5K5	10600	4/24	64	22.9	6.8	5.3	16.0	20			
Grizzly Peak*	5K9	11250	4/24	83	29.4	10.2	12.6	20.3	14			
Empire	5K10	9650	4/26	36	10.9	1.3	1.0	--	7			
Berthoud Falls	5K13	10500	4/26	45	16.1	3.5	2.0	--	5			
Clear Creek	5K17	11300	4/24	74	24.4	8.9	11.4	--	5			
<b>SOUTH PLATTE RIVER (Above Denver)</b>												
Hoosier Pass	6K1	11400	4/30	47	15.0	5.9	3.0	12.0	20			
Fairplay	6K2	10000	4/30	0	0.0	0.0	0.8	0.1	20			
Jefferson Cr.	5K8	10100	4/30	34	9.0	5.4	1.6	7.5	16			
Geneva Park	5K11	9750	5/1	7	2.1	0.9	0.4	--	7			
<b>ARKANSAS RIVER DRAINAGE</b>												
<b>ARKANSAS RIVER</b>												
Tennessee Pass	6K2	10200	4/30	30	11.2	0.0	0.0	6.8	20			
Twin Lakes T.	6K3	10500	4/30	31	9.3	4.2	3.3	9.5	19			
La Veta Pass*	5M1	9300	4/30	0	0.0	0.0	1.0	4.1	20			
4-Mile Park	6K7	9700	4/30	2	0.8	0.0	0.0	0.4	18			
Fremont Pass	6K8	11400	4/24	68	23.6	14.2	12.0	18.7	20			
Blue Lakes	5M2	10000	4/30	8	3.0	3.2	2.2	7.0	18			
Monarch Pass	6L4	10500	5/1	49	17.5	12.6	3.2	19.3	15			
St. Elmo	6L5	10600	4/29	35	11.5	4.0	2.5	--	6			
Timberline	6K11	11100	4/26	70	23.7	20.4	8.6	--	7			
Cooper Hill	6K16	10600	4/25	32	10.0	3.0	0.0	--	4			
East Fork	6K17	10700	4/24	34	10.3	2.1	0.0	--	4			
Westcliffe	5L2	9000	5/1	0	0.0	0.0	1.4	--	3			

\*On adjacent drainage

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NS - No survey



**LIST AND LOCATION OF SNOW COURSES**

No.	State	Name	Sec.	Twp.	Rge.	Elev.	No.	State	Name	Sec.	Twp.	Rge.	Elev.
<u>North Platte</u>							<u>Yampa</u>						
6J2	C	Park View	24	5N	78W	9200	6J1	C	Dry Lake	26	7N	84W	8300
6J3	C	Columbine	21	5N	82W	9300	6J4	C	Elk River	6	10N	85W	9300
6J7	C	Northgate	8	11N	79W	8500	6J8	C	Routt Line	13	5N	83W	9700
							6J9	C	Rabbit Ears	30	5N	83W	9550
							6J10	C	Yampa View	21	5N	84W	8500
<u>Laramie</u>							<u>White</u>						
6J12	C	Roach	5	10N	77W	9800	7K2	C	Burro Mountain	15	2S	91W	9000
5J15	C	McIntyre	35	10N	76W	9100	7J1	C	Rio Blanco	28	1N	88W	8500
<u>South Platte</u>							6J13	C	Clark	24	9N	85W	7800
5J1	C	Cameron Pass	2	6N	76W	10300	7J3	C	Bear River	14	1N	86W	9100
5J2	C	Chambers Lake	6	7N	75W	9000	<u>Plateau Creek</u>						
5J3	C	Big South	33	8N	75W	8600	7K4	C	Mesa Lakes	35	11S	96W	10000
5K1	C	East Portal	2	2S	74W	9400	7K5	C	Trickle Divide	23	11S	94W	10000
6K1	C	Hoosier Pass	13	8S	78W	11100	<u>Gunnison</u>						
5K2	C	Fairplay	33	9S	77W	10000	6L1	C	Crested Butte	22	13S	86W	9000
5J5	C	Wild Basin	24	3N	74W	10000	6L2	C	Park Cone	19	14S	82W	9700
5J6	C	Deadman Hill	25	10N	75W	10200	7K3	C	Alexander Lake	2	12S	95W	10000
5J8	C	University Camp	26	1N	73W	10300	7K4	C	Ironton Park	29	13N	7W	9800
5K5	C	Loveland Pass	27	4S	76W	10600	7K6	C	Park Reservoir	34	11S	94W	9500
5J11	C	Hour Glass Lake	18	7N	73W	9500	6L3	C	Porphyry Creek	19	4N	6E	10800
5K8	C	Jefferson Creek	14	7S	76W	10100	7K7	C	Kannah Creek	5	12S	95W	10700
5J13	C	Hidden Valley	23	5N	74W	9550	7K8	C	Lake City	13	13N	4W	10300
5J17	C	Deer Ridge	19	5N	73W	9050	7K9	C	McClure Pass	1	11S	89W	9500
5J18	C	Copeland Lake	21	3N	73W	8600	7K15	C	Red Mountain	13	12N	8W	11000
5K10	C	Empire	21	3S	75W	9650	7K9	C	Ward Lake	2	12S	95W	10000
5K11	C	Geneva Park	18	6S	74W	9750	<u>San Juan</u>						
5J20	C	Red Feather	26	10N	74W	9000	7M3	C	Upper San Juan	1	37N	1E	10000
5K12	C	Moffatt	2	2S	74W	9400	7M4	C	Silverton	10	11N	7W	9400
5J21	C	Ward	1	1N	73W	9500	7M5	C	Cascade	13	39N	9W	8850
5K13	C	Berthoud Falls	15	3S	75W	10500	7M7	C	Granite Peaks	23	37N	6W	7950
5J22	C	Longs Peak	32	4N	73W	10500	7M10	C	La Plata	4	36N	11W	9700
5J23	C	Lost Lake	32	8N	75W	9300	<u>Dolores</u>						
5K17	C	Clear Creek	28	4S	76W	11200	7M1	C	Rico	11	39N	11W	8700
5J25	C	Boulder Falls	26	1N	73W	10000	7M2	C	Telluride	6	42N	8W	8600
5J26	C	Two Mile	22	5N	74W	10500	7M3	C	Lizard Head	24	11N	10W	10300
<u>Arkansas</u>							7M3	C	Trout Lake	8	11N	9W	9700
<u>Upper Colorado</u>							<u>Rio Grande (Colorado)</u>						
5J4	C	Phantom Valley	7	5N	75W	9300	6M1	C	Wolf Creek Pass	4	37N	2E	10000
5K3	C	Berthoud Pass	35	2S	75W	9700	7M16	C	Upper Rio Grande	13	40N	4W	9350
5K4	C	M. F. Camp Ground	16	3S	77W	9000	6M1	C	Silver Lakes	15	36N	5E	9600
6K5	C	Fiddler Gulch	1	8S	80W	11000	6M5	C	River Springs	25	33N	6E	9300
5J7	C	Lulu	25	6N	76W	10200	6M6	C	Summitville	30	37N	4E	11500
6J5	C	Willow Creek Pass	1	4N	78W	9500	6M7	C	Cumbres Pass	17	32N	5E	10000
5J9	C	N. Inlet Grand Lake	26	4N	75W	9000	7M7	C	Santa Maria	8	11N	2W	9700
5J10	C	Lake Irene	8	5N	75W	10600	5M3	C	Culebra	37.2N	105.2W		10000
5K6	C	Arrow	34	1S	75W	9900	5M4	C	Fort Garland	13	29N	72W	8200
5K7	C	Lapland	16	2S	79W	9500	6M9	C	Platoro	22	36N	4E	9950
6K8	C	Fremont Pass	3	8S	76W	11100	6M10	C	West Conejos	21	31N	5E	9150
6J6	C	Lynx Pass	10	1N	83W	9100	6M11	C	LaManga	23	33N	5E	10000
6K9	C	Shrine Pass	15	6S	79W	10500	7M8	C	Pyramid	26	11N	5W	10300
5K9	C	Grizzly Peak	2	5S	76W	11250	7M9	C	Spring Creek Pass	2	12N	3W	10900
6K20	C	Glen-Mar Ranch	31	2S	77W	8850	6M1	C	Pool Table Mt.	19	11N	2E	10000
5J14	C	Monarch Lake	30	2N	74W	8500	6M15	C	Lake Humphrey	32	10N	1E	9300
5J16	C	Granby	11	2N	77W	8700	6L6	C	Cochetopa Pass	12	15N	3E	10000
5J19	C	Grand Lake	30	4N	75W	8600	7M20	C	Porcupine	2	11N	3W	10100
5K14	C	Berthoud Summit	10	3S	75W	11300	6M17	C	Wolf Creek Summit	6	37N	2E	11000
5K15	C	Frazer View	34	2S	75W	10600	<u>Rio Grande (New Mexico)</u>						
6J11	C	Core Pass	2	1N	82W	8900	5N1	NM	Red River	29	28N	15E	9500
6K13	C	Frisco	18	6S	78W	9300	5N2	NM	Taos Canyon	10	25N	15E	9000
5K16	C	Snake River	9	5S	76W	9700	5P1	NM	Aspen Grove	12	18N	10E	9100
6K14	C	Summit Ranch	8	4S	78W	10000	5N3	NM	Hematite Park	8	28N	15E	9500
5J24	C	Milner Pass	7	5N	75W	10100	5N4	NM	Tres Ritos	23	22N	13E	9000
6K15	C	Vail Pass	26	5S	79W	10000	6N1	NM	Payrole	16	28N	7E	9700
6K18	C	Kokomo	23	7S	79W	10600	6M2	NM	Chama Divide	36.9N	106.7W		7750
6KL9	C	Pando	10	7S	80W	9500	6N3	NM	Chamita	36.9N	106.7W		8500
<u>Roaring Fork</u>							5N5	NM	Cordova	28	22N	13E	10100
6KL4	C	Ind. Pass Tunnel	20	11S	82W	10700	5P2	NM	Panchuela	27	19N	12E	8300
7KL	C	North Lost Trail	20	11S	87W	9200	5P3	NM	Big Tesuque	17	18N	11E	10000
6K6	C	Nast	1	9S	83W	8700	5P4	NM	Elk Cabin	8	17N	11E	8250
6KL10	C	Ivanhoe	12	9S	82W	10400	5P5	NM	Rio En Medio	8	18N	11E	10100
							6P1	NM	Quesazon	34	20N	5E	9300
							6N4	NM	Bateman	5	26N	6E	9300
							6P2	NM	Fenton Hill	7	19N	3E	8900

## WYOMING

## NEBRASKA

UTAH

KANSAS

ARIZONA

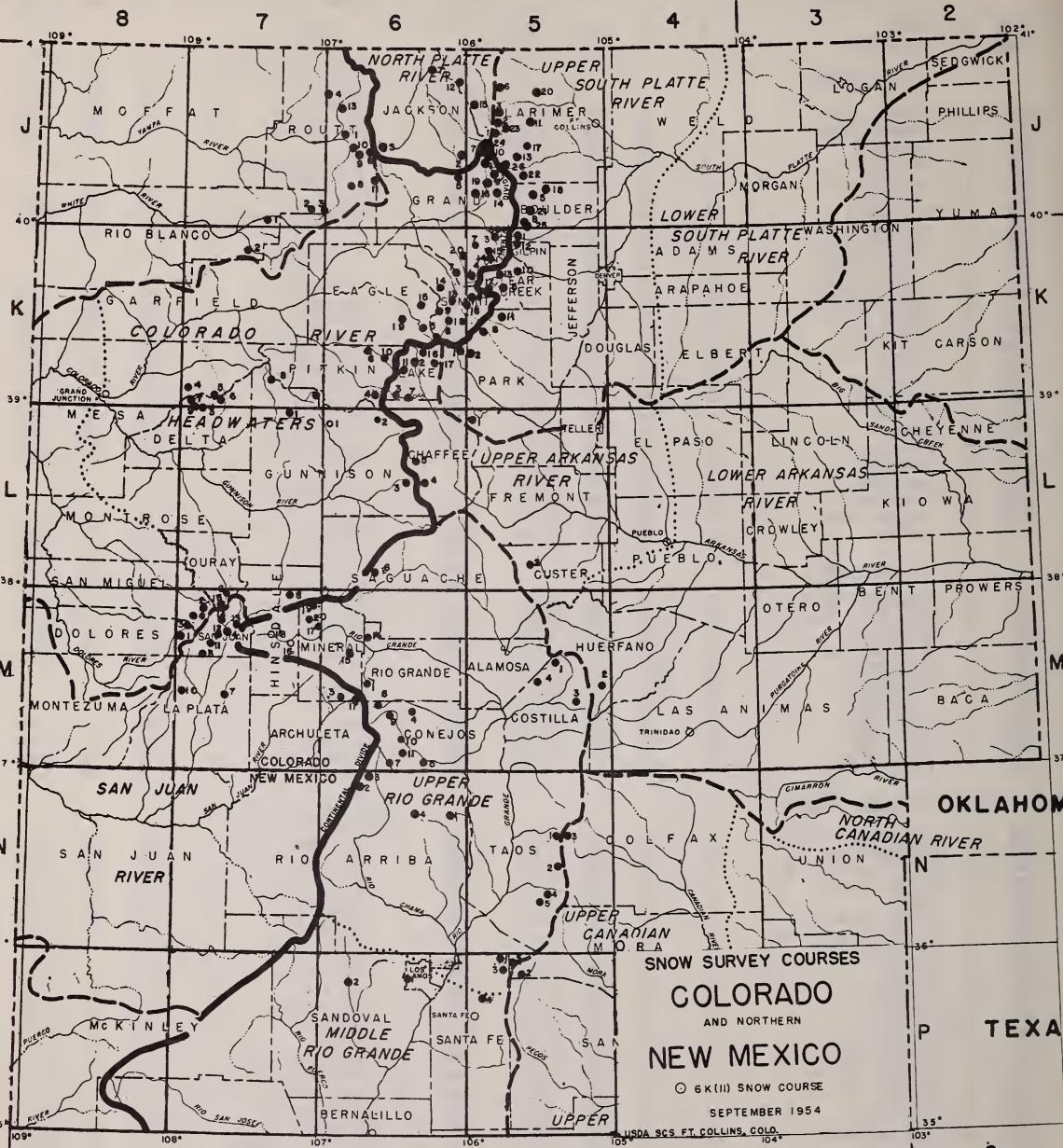
TEXAS

COLORADO  
AND NORTHERN  
NEW MEXICO

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SEPTEMBER 1954

USDA 3CS FT. COLLINS, COLO.





Federal - State - Private  
COOPERATIVE SNOW SURVEYS

Furnishes the basic data  
necessary for forecasting  
water supply for irrigation,  
domestic and municipal water  
supply, hydro-electric power  
generation, navigation,  
mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"